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Building Inspection Policy & Procedure No. 105

P&P 105

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ACCESSORY BUILDING FOUNDATIONS

Question:

Can small accessory buildings be built utilizing a foundation that, while adequate to support the building, does not meet the prescriptive foundation requirements of the dwelling code?

Background:

This Policy & Procedure is written to bring the existing Procedure No. 99-1 into the current format.

Section R104.11 of the Oregon Residential Specialty Code states in part, "The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved."

Section R403.1 of the Oregon Residential Specialty Code states in part, "All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, wood foundations, or other approved structural systems which shall be of sufficient design to accommodate all loads…"

The requirements for foundation anchorage in Seismic Design Category D1 are found in Section R403.1.6.1 of the Oregon Residential Specialty Code. Item number 6 of this section states, "Where continuous wood foundations in accordance with Section R404.2 are used, the force transfer shall have a capacity equal to or greater than the connections required by Section R602.11.1 or the braced wall panel shall be connected to the wood foundations in accordance with the braced wall panel-to-floor fastening requirements of Table R602.3(1)."

Section R403.1.4.1 of the Oregon Residential Specialty Code lists several exceptions to the requirements for footings to be placed below the frost depth. Among these exceptions are free standing accessory structures with an area of 400 square feet or less, with an eave height of 10 feet or less.

The Oregon Structural Specialty Code has the following pertinent code sections:

1. Section 1809.12 allows timber footings for buildings of Type V construction.
2. Section 1807.1.4 allows wood foundation systems designed and installed in accordance with AF&PA PWF.
3. Section 1809.5 exception exempts certain structures, such as these, from the frost depth requirements.

Discussion:

Both the Oregon Residential Specialty Code and The Oregon Structural Specialty Code provide prescriptive methods for constructing buildings with timber or wood foundations. In addition, both codes provide exceptions to the frost depth requirements for small structures meeting certain criteria.

The past practice has been to allow small accessory structures to be placed on pier blocks, skids, and wood foundation plates. This practice has worked well for both the department and for the owners of the structures for decades. These structures are small in size, are not normally occupied, and are in a low hazard occupancy category.

Ruling:

A detached one-story light-framed accessory structure not used for human occupancy and not over 400 square feet in floor area may be constructed with walls supported on a wood foundation plate, pier blocks, skids, or any other equivalent foundation systems, provided:

1. The use of the structure is in Occupancy Category I.
2. All other pertinent sections of the code are met.
3. The structure does not have any interior brittle finish.
4. The foundation system is adequate to support the building and code imposed floor and roof loads.
5. The eave height of the building does not exceed 10 feet.
6. The building is no taller than the length of the shortest side.
7. The structure uses brace panels or an engineered system for lateral bracing. If any alternate brace panels, or portal frames are used, then the structure requires a full prescriptive or engineered foundation.

8. All wooden floor framing within 18 inches of the ground, including sleepers, joists, blocking, and subflooring, and all wooden floor beams within 12 inches of the ground shall be pressure treated.
9. Wood siding, sheathing and wall framing on the exterior of the building having a clearance of less than 6 inches from the ground shall be decay resistant wood or pressure treated wood.